



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,834	01/15/2002	Kelly Molenaar	MAC - 203	1333

7590

04/09/2003

Robert L. McKellar  
Suite #2  
816 West Wackerly St.  
Midland, MI 48640-2730

EXAMINER

GARCIA, ERNESTO

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/050,834

Applicant(s)

MOLENAAR, KELLY

Examiner

Ernesto Garcia

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 2,3 and 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 and 4-7, drawn to a ball joint, classified in class 403, subclass 143.
- II. Claims 2 and 3, drawn to an automotive suspension system, classified in class 280, subclass 5.521.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the automotive suspension system does not require the ball joint as claimed in claim 1. The subcombination has separate utility such as being used in a tie rod or an arm of a robot.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Furthermore, this application contains claims directed to the following patentably distinct species of the ball joint:

- I. A ball joint comprising a means for attaching is external threads (claim 4);
- II. A ball joint comprising a means for attaching is a flange (claim 5); and,
- III. A ball joint comprising a means for attaching is a compression fit (claim 7).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include

all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Robert L. McKellar on April 1, 2003 a provisional election was made without traverse to prosecute the invention of group I, claims 1 and 4. Affirmation of this election must be made by applicant in replying to this Office action. Claims 2, 3 and 5-7 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "means for attaching the housing to a support arm of a

suspension arm" (claim 1, line 18; and, "the means for attaching the housing to the support arm of the suspension system is external threads on the external surface of the middle portion of the housing" (claim 4, lines 1-3).

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the attachment (claim 1, line 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

regarding claim 1, the limitation "the attachment" in line 6 should be --an attachment--. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizusawa et al., 4,568,216 (see marked-up attachment) in view of Edwards, 2,559,857.

Regarding claim 1, Mizusawa et al. disclose in Figure 6 a ball joint comprising an elongated shaft 1, a ball 2, a retaining member 20, a housing 6, and a fastening means 29a for fastening the member 20 in the housing 6. The shaft 1 has an upper end A2, a lower end A3, and a longitudinal axis x running through the upper end A2 and the lower end A3. The shaft 1 is threaded on the lower end A3. The ball 2 is rigidly fixed and surmounted on the upper end A2 of the shaft 1. The ball 2, at a highest point opposite an attachment A18 of the shaft 1, having a truncated flat face A6. The member 20 is externally threaded (col. 5, lines 61-64) on the lower end A9 of the member 20. The housing 6 has an outside surface A13, a middle portion A14, and a lower end A15. The housing 6 is internally conformed at the lower end A15 of the housing 6. The middle portion A14 of the housing 6 is internally threaded (col. 5, line 51-54). The middle portion A14 has a means A16 for attaching the housing 6 to a support arm of a

Art Unit: 3679

suspension system. However, Mizusawa et al. fail to disclose the member **20** having a lubricating port. Edwards teaches in Figure 1 a member **32** having a lubricating port (the hole where nipple **34** is mounted on) located in an upper surface **A8** thereof; and the lubricating port is openly connected to a duct **34** providing a passageway to lubricate the ball joint. Therefore, as taught by Edwards, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a lubricating port to lubricate the ball joint.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheublein, Jr. et al., 2,954,993, in view of Mizusawa et al., 4,568,216 and Maughan, 5,564,853.

Regarding claim 1, Scheublein, Jr. et al. disclose in Figure 9 a ball joint comprising an elongated shaft **94**, a ball **100**, a retaining member **104**, and a housing **91**. The shaft **94** has an upper end **A2**, a lower end **A3**, and a longitudinal axis **x** running through the upper end **A2** and the lower end **A3**. The shaft **94** is threaded on the lower end **A3**. The ball **100** is rigidly fixed and surmounted on the upper end **A2** of the shaft **94**. The member **104** is externally threaded (col. 5, lines 59-61) on the lower end **A9** of the member **104**. The housing **91** has an outside surface **A13**, a middle portion **A14**, and a lower end **92**. The housing **91** is internally conformed at the lower end **92** of the housing **91**. The middle portion **A14** of the housing **91** is internally threaded (col. 5, lines 5-61). The middle portion **A14** has a means **95** for attaching the



Art Unit: 3679

housing **91** to a support arm of a suspension system. The member **104** has lubricating port **106** located in the upper surface **A8** thereof. The lubricating port is openly connected to a duct **107** providing a passageway. However, Scheublein Jr. et al. fail to disclose a fastening means for fastening the member **104** in the housing **91**; and the ball **100**, at a highest point opposite an attachment **A18** of the shaft **94**, having a truncated flat face.

Mizusawa et al. teach in Figures 1 that a ball **2**, at a highest point opposite an attachment of a shaft **1**, having a truncated flat face. Mizusawa does not discuss the reason for truncating the ball to have a truncated flat face. It appears that a truncated flat face provides a gap for storing more lubricant than a ball without a truncated flat face. Therefore, as taught by Mizusawa et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the truncated flat face on the ball, at the highest point opposite an attachment of the shaft to provide a gap for storing more lubricant than a ball without a truncated flat face.

Maughan teaches in Figure 8 a ball joint comprising a fastening means **260**, **262** for fastening a member **244** in a housing **208** to stake the member **244** in place (col. 7, lines 61-62). Therefore, as taught by Maughan, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a fastening means for fastening the member in the housing to stake the member in place.

Regarding claim 4, Scheublein, Jr. et al. discloses the attaching means **95** is external threads on an external surface of the middle portion **A14** of the housing **91** (col. 5, lines 53-55).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 703-308-8606. The examiner can normally be reached from 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

  
**Lynne H. Browne**  
**Supervisory Patent Examiner**  
**Technology Center 3600**

E.G.

April 2, 2003

Attachments: one marked-up copy of Mizusawa et al., 4,568,216.  
one marked-up copy of Scheublein, Jr. et al., 2,954,993.